

Energy & Alternate Fuels Issues information for consideration and discussion:

CIBO 2009 RPS/RES Position Paper

As approved and adopted March, 10. 2009

The following are CIBO positions relative to Renewable Portfolio Standards (RPS)/Renewable Electricity Standards (RES) under consideration in the 111th Congress. Specific comments and positions reference the draft Markey language in the House and the draft Bingaman language in the Senate.

General Positions

- As an overarching policy, CIBO supports utilization of all energy resources in an environmentally protective manner so that a high level of flexibility in energy and fuel supplies can be available to energy providers and consumers. This will protect national security by reducing dependence on foreign sources of energy, allow industrial and institutional consumers to optimize fuel choices so that they can be competitive and provide stable jobs, and provide lowest market based costs to consumers.
- In general, CIBO believes that a uniform national RPS is neither a cost effective nor equitable approach to advancing the use of renewable energy resources for electricity generation. Individual state programs currently in place and under consideration provide carefully tailored approaches that can optimize the implementation of additional renewable-based generation with recognition of the available natural resources, the unique economic characteristics, and the electricity generation/transmission/distribution structure in the state. A national RPS program that requires the same percentage of renewables-based electricity sales by all electric utilities to consumers does not allow such flexibility and would result in an inequitable transfer of wealth between states. A national program with limited flexibility would increase costs to consumers compared to programs that incentivize additional renewable capacity and allow market principles to determine optimum use of limited financial resources.
- CIBO believes that implementation of a comprehensive and well thought-out climate change policy addressing all sectors of the economy will provide a platform to advance increased renewable-based electricity generation. Implementation of a separate RPS program with a non-integrated climate change program would appear to simply institute duplicative bureaucratic program costs that will unnecessarily increase costs to consumers. Retaining a separate national RPS could even result in cross purposes and non-optimum actions that might reduce overall effectiveness. If an RPS is instituted, any subsequent climate change program should either integrate and optimize any renewable

programs or sunset the RPS at an appropriate time when the climate change program is in full effect.

Specific RPS Positions if a National RPS is Implemented

- A national RPS needs to include an energy efficiency allowance so that a significant portion of the RPS generation requirement can be satisfied by energy efficiency improvements by entities in any sector of the economy. Industrial and institutional energy efficiency improvements in particular can provide highly cost effective improvements in locations where renewable energy supplies and alternatives may be limited. Utilizing energy efficiency can help mitigate overall costs as well as avoid wealth transfer between states. The Senate draft includes the ability to use energy efficiency; the House language does not. The use of energy efficiency credits should not be limited to 25% of the total electric utility requirements, but rather, should be unlimited or allowed a higher percentage. There will likely be cases where energy efficiency/demand reduction is the most practical and economical approach for a specific location due to limited renewable resources.
- Congress should recognize the inherent regional and state differences in renewable resource availability. Any federal program should be integrated with state programs to avoid conflicts and duplicative layered compliance requirements and costs.
- In order for a federal RPS program to be equitable and flexible, since existing state programs allow REC sales based on biomass generated electricity, the same capability must be provided to all areas subject to a federal RPS. In addition, all RECs need to be tradable in order to not distort the REC and electricity market. Nontradeable RECs have no real value.
- Recognition of distributed generation facilities needs to encompass any generation at a site other than an electric utility facility. The Senate language provides some flexibility since it “means a facility at a customer site,” however, that needs to be expanded to recognize the diverse nature of industrial facilities, e.g., sites with multiple tenants, third party energy supply or CHP facilities. The House language is much too restrictive, e.g., limiting capacity to 2MW maximum.
- Relative to new renewable energy, the Senate language references the biomass definition provided in the Energy Policy Act of 2005. That definition is fairly inclusive; however, an RPS which in effect drives toward increased use of biomass for electricity generation needs to include provisions which protect and do not detract from the use of biomass materials as feedstocks for valuable products. Many industrial, commercial, and institutional facilities also utilize biomass as boiler fuel and that provides a critical competitive advantage that allows facilities to retain valuable domestic jobs. RPS features would need to be framed in a way to promote cost effective utilization of all viable fuel materials by all types of facilities and to not result in unintended negative consequences. Increasing the demand for biomass materials through renewable electricity generation mandates will result in increased cost for those biomass materials, thus impacting all users of those materials. CIBO questions if this impact has been fully evaluated.

- A federal RPS should explicitly exclude any CHP facilities from being considered an electric utility subject to the renewable electricity sales requirements. CHP facilities operate with an inherently higher efficiency and should be advocated under the energy efficiency provisions. This is most important if the utility electricity sales threshold is lowered from the current Senate draft language 4 million MWH/yr level.
- A federal RPS would likely drive significant increased demand for biomass resources in search of short term goals. This could easily result in decimation of forest and biomass resources, to the detriment of future generations. Any RPS approach needs to ensure healthy resource management to protect long term viability of natural resources.
- In general, the Senate draft language is believed to be much more flexible and workable as a starting point than the House language, but the above issues would need to be addressed.

COMBINED HEAT and POWER (CHP)

Modified from CIBO Police page 2003

Combined Heat and Power (CHP) offers significant benefit to industry and our country through increased efficiency, improved environmental performance, reduced losses and improved reliability in electricity transmission, more effective use of natural resources, decreased costs and improved national competitiveness. Therefore, any energy or environmental legislation should promote and incentivize, not hinder or restrict, the applicability of CHP.

Ensure that True Open Market Competition Exists –

It is essential to maintaining a viable combined heat and power industry that... Competitively priced backup power supply and open market sales of excess electricity production be promoted. Utilities have no incentive to support higher efficiency competitors.

Restriction of FERC Standard Market Design –

Any restriction to FERC control or oversight of open access to the electric transmission systems hinders CHP application. The market power of some utilities can be used to eliminate competition from highly efficient CHP operations. Utilities have no incentive to support higher efficiency competitors.

Imposition of Transmission Access Charges (Electricity Reliability) –

Any requirement to burden CHP with transmission development costs for a separate transmission supplier hinders CHP application and is another way for utilities to stifle high efficiency competition. Utilities have no incentive to support higher efficiency competitors.

Inclusion of CHP Systems as Utilities and Within Utility Legislation –

Any inclusion in Multi-Emissions legislation of CHP facilities with Utility units without their own allowances and with utilities controlling the availability of allowances hinders the application of CHP systems. Utilities have no incentive to support higher efficiency competitors.

Clean Coal/CCS Research and Development

From a response to Senator Dorgan Question below:

Question:

Industrial Sector Interests and Application –

How can the impacts of carbon management be equitably shared across all sources of carbon (point sources -- electric power, industrial, ethanol production, etc., non-point sources -- transportation) so that one sector is not penalized to the benefit of another sector?

Answer:

Flexibility must be included in the definition of Clean Coal Technologies to include pre-combustion, combustion and post-combustion technologies regardless of size.

Flexibility must be included in the definition of Carbon Capture and Sequestration. A one technology, one size fits all could smother innovation and slow the development of yet to be discovered beneficial technologies. These are more often than not developed at the small scale than the grand utility scale.

A set-a-side for Non-utility projects equal to 10% to 30% of the overall CC/CCS Funding should be included for management by NETL and broken down in three classifications; proof of concept, development of technology and demonstration at scale.

Project funding evaluations should be made based on the delivered cost of electricity to the target market including line losses for transmission; commercial readiness of individual parts; cost of knowledge gained, risk of failure, commercialization potential and contribution percentage.

The following are Draft Statements of Manufacturer's Energy Group (MEG) as of March 26, 2009

EERS/RES-

Introduction

The House and Senate are likely to consider energy legislation in the coming months that will include a Federal Electricity Standard that would require electric suppliers¹ to generate a portion of their electricity with qualifying renewable energy sources. There seems to be a consensus that the House has the votes to support such a proposal. The Senate has had the votes in the past, but support at this point is uncertain.

Drafted Legislation

On the House side, Edward Markey (D- MA) recently released two bills. The first is H.R. 889, the Save American Energy Act is an energy efficiency resource standard and the second is H.R. 890, the American Renewable Energy Act, which is a Federal Electricity Standard. On the Senate side, Jeff Bingaman has drafted a bill, which is a Federal Renewable Portfolio Standard.

The purpose of both H.R. 890 and Bingaman's RPS bill is to cut greenhouse gas emissions from the generation of electricity and to spur the development of renewable energy markets. Markey's EERS bill is also designed to reduce greenhouse gas emissions, but would largely do so from the consumer end by improving the energy efficient use of electricity, thereby reducing the demand.

The Issue

Any RES/RPS legislation should utilize an expanded definition of qualifying energy sources to promote clean energy generation beyond a limited pool of renewable resources. Means of generating energy efficient electricity already exist and are more cost-effective than the planning and procurement of new renewable energy sources. Some states have argued that they do not have access to a plentiful supply of renewable resources to meet an electricity standard. An expanded definition of qualifying energy sources could better address this critical issue by allowing for more flexibility in meeting the standard for generating electricity with clean energy.

The definition of qualifying renewable energy in both H.R. 890 and Bingaman's RPS bill is entirely too restrictive because other clean energy sources are excluded. Both bills limit what electric suppliers may use to comply with the bills' minimum annual percentage of electricity generated from renewable sources. The bills limit qualifying renewable energy to²: wind, solar geothermal, biomass or landfill gas, and qualified hydropower.

Legislative Objective

¹ Depending up on the approach taken, regulated entities could include facilities outside of the group generally referred to as electric utilities (i.e., large CHP units).

² This list is only intended as a general description. Each bill contains its own unique definition.

The definition of qualifying energy sources that could be used to comply with an RES/RPS should be expanded to include all lower emitting energy sources and any energy efficient mechanism that either reduces electric or natural gas consumption or reduces electric or natural gas demand.³ The effect of expanding the definition of qualifying energy sources would be to provide an equal footing for efficiency measures that would achieve reduced GHG emissions, a stated goal of the RES/RPS legislation. These energy efficiency efforts would include utility efficiency programs, building energy codes, appliance standards, and any third-party efficiency efforts (i.e., installing a more energy efficient boiler), CHP generation including third-party generation, and waste heat generation or other waste energy recycling.

³ The EERS legislation also includes a goal of reducing natural gas consumption in addition to electricity consumption.

Electricity Issues

SMART GRID AND MANUFACTURERS

The Issue

While almost everyone agrees that today's interstate electricity grid is outdated and should be modernized to make it "smarter," there is no precise definition of what comprises a "Smart Grid" (though there is agreement that "bigger" is not necessarily "smarter").

The Modern Grid Strategy (MGS) developed by the National Energy Technology Laboratory (NETL) has agreed on seven "defining Smart Grid characteristics." They are:

- Enabling informed participation by customers
- Accommodating all generation and storage options
- Enabling new products, services, and markets
- Providing the power quality for the range of needs in the 21st century
- Optimizing asset utilization and operating efficiently
- Addressing disturbances – automated prevention containment, and restoration
- Operating reliably against physical and cyber attacks and natural disasters.

The Electric Power Research Institute defined Smart Grid a little differently, listing three essential characteristics as the ability to be: "*Interactive* with consumers, end-use equipment and markets; *Predictive* rather than reactive; and *Adaptive* to make optimal use of low-carbon generation options."

The basic premise is that a Smart Grid established two-way communications between suppliers and consumers. Consumers can receive information from the grid and react to price signals and other information. Suppliers can use information about power flows to better manage the flow of power and can supply information to customers to incent reductions in demand.

Advocates of Smart Grid technology assert that it will enable managers and operators of the grid to prevent outages and to identify power breaks more quickly. It will assist in placing the most efficiently produced power on the grid as well as facilitating better use of power generated from renewable resources, thus reducing the carbon footprint. By utilizing a Smart Grid, grid operators will be able to realize more potential from Demand Response. And it will also make consumers aware of when power is most expensive and empower them to better manage their household consumption. Advocates of Smart Grid argue that even if power costs increase, the increases will be less than would have occurred without a Smart Grid.

Skeptics question whether consumers – large or small – will ever see any real benefits from a Smart Grid. David Springe, chairman of the National Association of State Utility Consumer Advocates, sarcastically observed that being able to turn on his toaster with his cell phone was not a sought after consumer benefit. Others have questioned whether consumers can significantly reduce consumption during periods of peak demand (roughly 4-7:00 pm) – one of the frequently mentioned benefits cited by

proponents of a Smart Grid. And, aside from greater utilization of Demand Response, industrial facilities, particularly those that operate “24/7,” may find few opportunities to realize significant benefits.

Manufacturers’ Concerns and Legislative Objectives

Costs and benefits are primary concerns for manufacturers. Accordingly, if legislation addresses the development of a Smart Grid, manufacturers seek that:

- Cost/benefit analysis, and meaningful measurement and verification, be assigned to an independent third party
- Analyses show clear net benefits for consumers, i.e., that benefits exceed costs
- Competitive bidding be utilized and wherever possible that least cost alternatives be utilized
- Every effort be made to minimize software and hardware obsolescence.

Legislation to Support Industrial Demand Response

The Issue

As Congress develops legislation to increase the nation’s energy security and reduce greenhouse gas emissions, it should also adopt policies to support greater use of Demand Response at industrial facilities. Demand Response includes actions taken by facilities to reduce their need for energy, such as shutting down manufacturing during peak energy usage, or shifting production on a long term basis to non-peak times. Industrial demand response actions benefit all rate payers in that it helps the utility avoid using expensive generation during peak demand periods and it can allow utilities to defer or avoid construction of long-term, expensive generation.

Congress has recognized the contribution Demand Response can play in helping the nation achieve energy security and climate change objectives by including several provisions promoting Demand Response in the Energy Security and Independence Act of 2007(EISA).

Manufacturers’ Concerns and Legislative Objectives

Regional Transmission Organization (RTO)/Independent System Operator (ISO) policies have imposed impediments to Demand Response. For example, some RTOs/ISOs have questioned whether providers of Demand Response should be compensated at all, asserting that the energy they save by curtailing or moving production “pays” them through reduced energy bills. Others have proposed to phase out compensation for demand response providers. This ignores the disruptions and associated costs to businesses that curtail or move production.

Some of these policies are based on the theory that paying for demand response would somehow interfere with the proper functioning of the market or that it is not the RTO/ISOs function to reduce consumers' electricity costs, but instead to maximize the amount of electricity bought and sold in the market.

Manufacturers can and want to contribute to achieving energy security and climate change objectives by providing Demand Response resources, but they need a policy framework that properly values those resources. Demand Response legislation should:

- Direct FERC to adopt Demand Response and market design policies that minimize consumer costs, reduce price volatility and risk, promote reliability, and provide suppliers of all services an opportunity to recover costs plus a fair return on investment.
- Establish that the mission of RTOs/ISOs is to minimize consumer costs, while providing for a fair return to electricity suppliers.

More Efficient Energy End Use Is Undermined by Utility

“Revenue Decoupling”

Improving energy efficiency in our homes, businesses, schools, governments, and industries is one of the most constructive ways to address the challenges of high energy prices, energy security and independence, air pollution, and global climate change. American businesses engaged in globally competitive markets, and particularly energy intensive manufacturing operations, have powerful incentives to improve the efficiency of their operations in order to be economically viable and have made great strides in this area as a result. In the extreme circumstances posed by the current economic crisis, the incentives to control energy-related manufacturing production costs are compelling. For other end use sectors, however, market flaws and inadequate consumer education on efficiency options have been blamed for a substantial gap between the potential for more efficient end use and actual consumption behaviors.

Rather than correct the underlying pricing problems embedded in utility rates (i.e., average cost based rates and historic rate designs), policy-makers are returning to utility managed and ratepayer funded programs to encourage more efficient customer end use strategies and investments. Some also maintain that revenue decoupling mechanisms (i.e., rate vehicles that guarantee forecasted utility sales revenues or margins) are necessary to offset the basic financial incentive of a utility to sell more rather than less energy. Revenue decoupling ensures a utility that it will achieve its energy sales and revenue targets regardless of actual energy sales levels. A customer that lowers its energy use by investing in more efficient equipment consequently will experience higher rates that will negate some or all of the energy bill savings it otherwise would expect from lowered energy usage. In short, a utility benefits from revenue decoupling by recapturing consumer energy bill savings associated with the consumer's efforts to

become more energy efficient. The basic rationale for utility revenue decoupling not only seems irrational, but actually serves to undermine energy efficiency objectives.

- Utility revenue decoupling is counterproductive. Motivating energy users is the essential purpose of energy efficiency programs. The prime motivator for any consumer to invest in new equipment or adopt improved end use behaviors is achieving energy bill savings. Increased energy efficiency performance can only be expected if that basic incentive is enhanced. Utility revenue decoupling actually weakens that incentive by recapturing those bill savings through higher rates. A policy that establishes that incentives to a utility are more important than the incentives to consumers when the objective is to induce more efficient consumer behavior is fundamentally flawed. Diminishing the basic incentive for consumer action will discourage new energy efficiency incentives.
- Utility revenue decoupling is counter intuitive. The very notion of a revenue or net margin guarantee for a utility regardless of actual sales is antithetical to any notion of competitive markets that regulators have been trying to instill in energy markets for years. At its core, revenue decoupling aims to ensure utility profit levels rather than encourage more efficient energy end use.
- Utility revenue decoupling is ineffective. Weather and economic growth are far and away the primary causes of variability in utility sales. The effects of improved end use energy efficiency are far less dramatic. Revenue decoupling mechanisms generally do not adjust for the variability of those primary factors. This effectively transfers utility electric sales risk, which normally is fully addressed in rate proceedings, to consumers. Decoupling also routinely leads to substantial over or under recovery deferrals, usually driven by weather, that may have unintended rate impacts. Decoupling also neuters a utility's normal incentive to support economic development in its franchise service territory.
- A Federal mandate for revenue decoupling inappropriately interferes with state regulation of retail utility services. States must balance many factors in establishing electricity rate structures and cost recovery mechanisms. Ratemaking judgments regarding sales growth is one part of that equation. A federal mandate for revenue decoupling is a piecemeal and ill-advised intrusion into the state deliberative process.

Transmission Expansion and Modernization

Overview

A better and stronger United States requires a healthy and growing manufacturing sector. A strong energy infrastructure with competitive energy prices has long been essential to that growth, and this foundation has been eroding. For roughly twenty years, investment in transmission capacity has lagged growth in electric demand and generation capacity. Congestion costs associated with transmission limitations have become a major concern affecting both wholesale and retail power costs in many areas of the country. There is broad consensus that substantial investments in transmission networks are required to ensure system reliability, efficiently deliver power from new generating sources to load, and accommodate the demands of a robust 21st century economy.

While electric networks throughout the country have become highly interconnected, the responsibility for certifying new or expanded transmission lines and rights of way lies primarily with state regulators. This system has often served to stifle development of interstate transmission projects. As large, multi-state regional transmission organizations that control the operation of the grid have developed, it has become apparent that planning and licensing of transmission investments also must take on a regional character. Existing federal authority over bulk electric system reliability, the operation of RTOs, and rates associated with the transmission of energy in interstate commerce is insufficient to establish a coherent system of regulation of transmission absent transmission siting authority. At the same time, merely shifting siting authority to the federal government neither diminishes the physical, land use, economic and other impacts associated with new high voltage transmission lines, nor lessens the concerns of all end users regarding appropriate allocation of the cost of new transmission investment. Also, existing RTO governance structures approved by FERC have not supported new transmission investment that would help mitigate transmission congestion. A regional planning process decided by a stakeholder process that includes market participants should be avoided.

Proposed Legislation

The Energy Policy Act of 2005 provided FERC with limited “backstop” transmission siting authority in federally defined congested areas of national significance. Congress is expected to consider a greatly expanded federal role in transmission line construction. Senator Harry Reid has introduced legislation that would link domestic renewable energy development in defined renewable energy zones, federally approved transmission line construction, and interconnection-wide transmission planning to support renewable energy development. At least 75% of the capacity of federally approved transmission lines would be reserved for renewable energy (The Clean Renewable energy and Economic Development Act).

Senator Bingaman also has circulated a discussion draft of transmission legislation that would authorize FERC to certify the construction of “national high priority transmission projects” (i.e., interstate transmission lines at 345 kV and higher voltages) if such lines are part of a multi-regional transmission planning process that includes all states and sector stakeholders. The bill requires interconnection-wide transmission planning and for a regional planning entity to file proposed cost allocation for designated transmission projects. FERC will address cost allocation absent a regional proposal.

The Issues

Everyone generally wants transmission expansion as long as they do not have to see it or pay for it. In the short term, a party’s interest in transmission expansion is heavily influenced by its exposure to congestion pricing. Also, while FERC has certified interstate gas pipeline siting for some time, there is some skepticism that the agency will adequately take into account the more complex local concerns associated with electric transmission lines. There may be even less confidence in a regional planning entity that is not directly accountable to the public. Allocating the costs of transmission upgrades and expansion is always a sensitive matter and likely will remain controversial with interconnection regional planning overlapping (and probably overwhelming) state and RTO planning initiatives.

The continuing role of states is a critical issue. The following provisions are incorporated in NARUC's Resolution on federal transmission authority:

- That, in no event should FERC be granted any additional authority to approve or to issue a certificate for a new interstate transmission line that is not consistent with a regional transmission plan developed, in coordination with affected State commissions or other designated State siting authorities, and other regional planning groups, that covers the entire route of the proposed project;
- That, in no event should FERC be granted any additional authority to approve or to issue a certificate for a new interstate transmission line unless there is already in place either (1) a cost-allocation agreement among all the states through which the proposed project will pass that governs how the project will be financed and paid for; or (2) a FERC-approved cost-allocation rule or methodology that covers the entire route of the proposed project.

Arguably, for any regional planning entity to make decisions that are consistent with state concerns and objectives, that entity should be comprised of state representatives rather than market participants.

Discussion Points

- Federal siting of high voltage transmission on an interconnection wide basis is necessary given the highly interconnected nature of electric networks.
- Federally certified transmission projects tied to specific types of generation supply (renewable) should be opposed. This would foster highly inefficient uses of the grid and promote inappropriate transmission construction decisions.
- Accountability is essential for any entity responsible for regional planning that results in the selection and certification of high voltage lines and the method for recovering the costs of such projects. Currently, states are responsible for electric transmission and intrastate gas pipeline siting and FERC is responsible for interstate gas pipeline approvals. Siting proceedings provide for public participation and commissioners are accountable for their decisions (to Congress, Legislatures or a Governor). FERC should not be positioned to defer to a regional entity composed of parties (i.e., market participants) that may have conflicting loyalties.
 - Market participants should not have decision-making responsibilities in any regional planning organization.
 - Regional entities should be comprised of the affected states. Allowing states a first attempt at cost allocation before any action is taken by FERC is important.
 - The regional planning process should be transparent, allow for a full and open administrative process, and result in written findings. This should also apply to proposed cost allocation for any particular project.